



Launch Mission Execution Forecast

Mission: Falcon 9 Transporter-1

Issued: 22 Jan 2021 / 0900L (1400Z)

Valid: 23 Jan 2021 / 0940-1022L (1440-1522Z)



Forecast Discussion: With the high pressure ridge anchored across the Florida Straits, a frontal system draped across North Florida has slowed. This boundary will bring some added mid and upper-level clouds across Central Florida today, but begin to erode as it tries to push south into the strong ridge. On Saturday, the frontal system will likely be over the Space Coast, bringing isolated showers to the Spaceport while further enhancing the mid-level cloudiness. The primary launch weather concerns Saturday morning are the Thick Cloud Layer Rule associated with the frontal cloudiness and the Cumulus Cloud Rule associated with the showers.

On Sunday, the boundary will continue to erode overhead as high pressure builds in from the north. This will begin to decrease the cloudiness and shower coverage through the day. The primary weather concerns Sunday remain the Cumulus Cloud Rule and the Thick Cloud Layer Rule associated with the lingering frontal effects.

Launch Day	Probability of Violating Weather Constraints					
	40%	Primary Concerns: Thick Cloud Layer Rule, Cumulus Cloud Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: Isold Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low
	Temp/Humidity: 65°F / 85%	Cumulus	Scattered	3,500	6,000	Booster Recovery Weather: Low
24-Hour Delay	Liftoff Winds (200'): 310° 12-17 mph	AltoCumulus	Broken	10,000	13,000	Solar Activity: Low
	Probability of Violating Weather Constraints					
	30%	Primary Concerns: Cumulus Cloud Rule, Thick Cloud Layer Rule				
	Weather Conditions				Additional Risk Criteria	
	Weather/Visibility: Isold Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Low
Temp/Humidity: 68°F / 80%		Cumulus	Scattered	3,500	7,000	Booster Recovery Weather: Low
Liftoff Winds (200'): 100° 12-17 mph		AltoCumulus	Scattered	10,000	12,000	Solar Activity: Low
Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.						
Next Forecast Will Be Issued		As Required				